

**B6.129-Myb<sup>tm1Epr</sup>/J**  
Stock No: **028881** | Myb<sup>F</sup>

 Congenic, Targeted Mutation

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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useful for studying the proliferation and differentiation of hematopoietic progenitor cells.

### Donating Investigator

E. P. Reddy, Mount Sinai School of Medicine

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## GENETIC OVERVIEW

Genetic Background

Generation

*Myb<sup>tm1Epr</sup>*

**Alele Type**

Targeted (Conditional ready  
(e.g. floxed), No functional  
change)

**Gene Symbol**

*Myb*

**Gene Name**

myeloblastosis oncogene

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

Developmental Biology Research

Hematological Research

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W   P R I C E   L I S T

### Details

#### Detailed Description

*Myb*<sup>FF</sup> floxed mutant mice possess *loxP* sites flanking exon 6 of the myeloblastosis oncogene (*Myb*). MYB is a transcription factor involved in the proliferation and differentiation of hematopoietic progenitor cells. Mice that are homozygous for this allele are viable and fertile. When these mutant mice are bred to mice that express Cre recombinase, resulting offspring will have exon 6 deleted in *cre*-expressing tissues.

When crossed to B6.Cg-Tg(Lck-cre)548Jxm/J mice (Stock No. [003802](#)) expressing Cre recombinase T lymphocytes, T cells in resulting *myb*<sup>FF</sup>/*LckCre* mice did not progress from the DN3 stage to the DN4 stage of thymocyte development. Thymic cellularity is decreased to 11% of that seen in controls. Double positive (DP) thymocytes are reduced by 62% compared to littermate controls.

When crossed to B6.Cg-Tg(Mx1-cre)1Cgn/J mice (Stock No. [003556](#)) expressing Cre recombinase in adult bone marrow, resulting *myb*<sup>FF</sup>/*MxCre* mice have reductions of hematopoietic lineages including neutrophilic, monocytic, B lymphoid, erythroid, and, megakaryocytic cells after polyinosinic-polycytidylic acid (pIpC) administration.

Stock No. [035170](#), a similar strain with *loxP* sites flanking exon 2, takes into account that splicing of nascent *Myb* mRNA between exon 1 and 2 occurs in the first reading frame, whereas all other known splices between coding exons are in the second and third reading frames. Thus, there are no known splicing events that could occur in frame down stream of exon 1 after Cre mediated deletion of exon 2. c-Myb proteins are not detected using antibodies that recognize epitopes in the N- or C-terminal ends after *cre* recombination in this line. This Stock No. [028881](#) with exon 6 floxed, targets the c-Myb DNA binding domain, rather than exon 2. Due to a variety of c-My splice variants expressed from different promoters, deletion of exon 6 may still produce a truncated protein driven by a promoter that is still present upstream of exon 2. This includes 2 major variants that involve exons 9 and 9A.

#### Development

#### Control Suggestions

#### Selected References

### Genetics

#### *Myb*<sup>tm1Epr</sup>

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## – Disease/Phenotype

+ [Disease Terms](#)

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+ [Research Areas By Phenotype](#)

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+ [Mammalian Phenotype Terms by Genotype](#)

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+ [References](#)

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## – Technical Support

C O N T A C T   T E C H N I C A L   S U P P O R T

### Genotyping Protocols

Standard PCR:[Myb](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony mice homozygous for the floxed allele may be bred together.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the Myb<sup>F</sup> mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028881 in your Materials and Methods section.

### Animal Health Reports

[Facility Barrier Level Descriptions](#)

*Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, [G200](#)*

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## – Pricing & Availability



Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

## DomesticInternational

Pricing effective for USA, Canada and Mexico shipping destinations

### CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for Myb<tm1Epr>	\$2,854.50

### RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.129-Myb<tm1Epr>/J Frozen Embryo	\$2595.00
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The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

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Email: [TechTran@jax.org](mailto:TechTran@jax.org)

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